

ABSTRACT

The present invention relates to a novel neurotrophin, NT-7. The present invention relates to nucleic acid sequences encoding neurotrophin-7, and to the substantially pure protein. The neurotrophin NT-7 was isolated from the fish, *Cyprinus carpio* (carp). NT-7 was found to be primarily expressed in skin, heart, and to a weaker extent in the intestine and brain in the adult fish.

Expression of the recombinant protein enabled the demonstration of its ability to support the survival and neurite outgrowth of embryonic chick dorsal root ganglion neurons. NT-7 can activate the receptor tyrosine kinase, Trks. Activity of NT-7 on neurons is likely to be mediated by the binding and phosphorylation of the TrkA receptor.

09157984-092298